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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,537	11/04/2005	Bengt Ivar Anders Ivarsson	12867-9	4810
757 7590 08/05/2008 BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610				
EXAMINER				
BUI, DUNG H				
ART UNIT		PAPER NUMBER		
4153				
MAIL DATE		DELIVERY MODE		
08/05/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/537,537

**Applicant(s)**IVARSSON, BENGT IVAR  
ANDERS**Examiner**

DUNG BUI

**Art Unit**

4153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6-3-05, 2-7-07, 3-7-08, 7-3-08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The following documents, US 5125127, FR 2425227, DE 3834686, DE 94207976, WO 9835602, US 2002/0011053, and US 2002/0062632, cited in the information disclosure statement filed on 6/3/2005 have been already submitted and considered as part of the information disclosure statement filed on 3/7/08 and 7/3/08.

### ***Claim Objections***

2. Claims 1-8 and 10-11 are objected to because:
- Claim 1, line 4 "airstream" should be replaced with "air stream".
  - Claim 5, line 2, "first and second cyclonic separating devices" renders the claim not clear because it is not clear if said devices are recited in addition to "a cyclonic separating device" recited in line 2 of claim 1, or are they two parts of the device of claim 1.
  - Claims 10-11 are objected to because they are directed to "a suction cleaner", while claim 5 is directed to "dust separating apparatus". Suggested correction is to replace "A suction cleaner" in claims 10-11 with "Apparatus".
  - Claim 8, "the body parts of the or each separating device" renders the claim not clear, because there is only one part (see "a part", claim 1, line 5) and one separating device (see "a cyclonic separating device", claim 1, line 2) recited prior to said limitation.
  - Claim 10 "said separating devices" and "the dust outlets of the two separating devices" renders the claim unclear, because it is not clear which of the three,

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previously recited separating devices, are being referred to (see "a cyclonic separating device", claim 1, line 2, and "first and second cyclonic separating devices", claim 5, line 2).

- Claim 10 "the receptacle" in line 5 renders the claim not clear, because it is not clear which of the two, previously recited receptacles is being referenced (see "a receptacle" in claim 1, line 4 and "a receptacle" in claim 10, line 3).
- Claim 11 "said removable body parts" renders claim unclear, because only one removable body part is recited prior to said limitation (see "a part movable in relation" in line 5 of claim 1).
- Claim 11 "the separating devices" renders the claim unclear because it is not clear which of the three, previously recited separating devices, is being referenced (see "a cyclonic separating device", claim 1, line 2, and "first and second cyclonic separating devices", claim 5, line 2).
- Claim 11 "said receptacle" in line 3 renders the claim not clear, because it is not clear which of the two, previously recited receptacles is being referenced (see "a receptacle" in claim 1, line 4 and "a receptacle" in claim 10, line 3).

Appropriate correction is required.

3. Claims 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form because it does not include every limitation the claims it depends from. A proper dependent claim shall not conceivably be infringed by anything which would not also infringe the claim said dependent claim depends from. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form or

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rewrite the claim(s) in independent form. Claim 4 defines location of the air inlet and outlet as being "at or towards the one end of the body", which is broader than the recitation of said location in claim 3, specifically "at one end of the body". Similarly, claim 4 defines the location the dust outlet as being "at or towards the other end of the body", which is broader than the recitation of said location in claim 3 "at the other end of the body". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by North (GB 2,367,510).

Regarding claim 1, North discloses a dust separating apparatus for a suction cleaner (page 1, lines 3-6), comprising a cyclonic separating device (page 2, lines 4-8) having a body (figure 5, refs. 20, 22) with an inlet (figure 5, ref. 14, page 12, lines 16-18) and an outlet for a stream of air (figure 5, refs. 36, 46), and an outlet for dust separated from the airstream (figure 5, ref. 35 and 45) to enter a receptacle for the separated dust (figure 5, ref. 26), wherein said body comprises a part (figure 5, refs. 22 and 26) movable in relation to the rest of the body (figure 5, ref. 20) while the rest of the body remains in position in the cleaner, to provide access to the interior thereof (see figure 5, refs. 20 and 22 sealingly joined at 24 and page 11, lines 5-7).

Regarding claim 2, North discloses all of the claim limitations as set forth above. Additionally the reference discloses the moveable part of the body is completely removable therefrom (see figure 5, refs. 20 and 22, sealingly joined at 24 and page 11, and lines 5-7).

Regarding claim 3, North discloses all of the claim limitations as set forth above. Additionally the reference discloses the separating device comprises the inlet (figure 5, ref. 14, page 12, lines 16-18) and outlet for the stream of air at one end of the body (figure 5, refs. 36, 46) and the outlet for dust (figure 5, down arrow to ref. 26) at the other end of the body, the removable part having the outlet for dust therein (see figure 5, refs. 20 and 22, sealingly joined at 24 and page 11, and lines 5-7).

Regarding claim 5, North discloses all of the claim limitation as set forth above. Additionally, the reference discloses first and second cyclonic separating devices (page 1, lines 3-6) each comprising a body (figure 5, refs. 20 and 22) with an inlet (figure 5, ref. 14 and page 12, lines 16-18) and an outlet for the stream of air (page 11, lines 14-16) and an outlet for separated dust (figure 5, ref. 26, outlet and collecting bin are the same body), the air outlet of the first separating device being connected to the air inlet of the second separating device (page 11, lines 16-19).

Regarding claim 6, North discloses all of the claim limitation as set forth above. Additionally, the reference discloses that at least the first separating device has a said moveable body part (e.g., figures 5, ref. 24, page 11, lines 5-7, page 23, lines 23-24, and page 24, lines 1-3).

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Oh (GB 2,368,516).

Regarding claim 1, Oh discloses a dust separating for a suction cleaner (abstract), comprising a cyclonic separating device (abstract) having a body (figure 3, ref. 20 and 30-31) with an inlet (figure 3, ref. 21) and an outlet for a stream of air (figure 3, ref. 23), and an outlet for dust separated from the airstream (figure 3, ref. 35 and 45) to enter a receptacle for the separated dust (figure 3, ref. 40), wherein said body comprises a part (figures 2-3, ref. 30-31) movable in relation to the rest of the body (figures 2-3, ref. 20) while the rest of the body remains in position in the cleaner to provide access to the interior thereof (figure 2).

Regarding claim 2, Oh discloses all of the claim limitations as set forth above. Additionally the reference discloses the moveable part of the body is completely removable therefrom (figure 2, ref. 30-31).

Regarding claim 3, Oh discloses all of the claim limitations as set forth above. Additionally the reference discloses the separating device comprises the inlet (figure 3, ref. 21) and outlet for the stream of air at one end of the body (figure 3, ref. 23) and the outlet for dust (figure 3, refs. 35 and 45) at the other end of the body, the removable part having the outlet for dust therein (figure 2).

Regarding claim 4, Oh discloses all of the claim limitations as set forth above. Additionally the reference discloses a separating device comprises a tangential air inlet and a central air outlet at or towards the one end of the body (figure 3, refs. 21 and 23),

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and the dust outlet (figure 3, refs. 35 and 45) extending tangentially at or towards the other end of the body.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (GB 2,368,516) as applied to claims 1-4 above, and further in view of Reiling (US 3,676,986).

Regarding claim 7, Oh discloses all of the claim limitations as set forth above.

While Oh does not explicitly disclose the removable body part of the separating device engages with the rest of the body thereof by a bayonet fitting, the reference discloses the removable body part of the separating device (figure 2-3, ref. 30-31).

Reiling teaches a dust separating apparatus (figure 1, the first housing ref. 12 and the second housing ref. 20) for a suction cleaner (abstract). Additionally, the



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reference discloses a movable part (figure 2, ref. 20) of the body of the dust separating apparatus is completely removable therefrom. Further, Reiling teaches that the removable body part (figure 2, ref. 20) of the separating device engages with the rest of the body (figure 2, refs. 12) thereof by a bayonet fitting (e.g., column 3, lines 41-46, column 4, lines 37-50, figure 2, refs. 28-29 and 90-92).

Oh and Reiling are analogous because both references are directed to a dust separating apparatus for a suction cleaner.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a bayonet fitting to engage the removable body part with the rest of the body, in device of Oh, as taught by Reiling, because the bayonet fitting provides a sure and quick connect and disconnect of the body parts; therefore, facilitating quick and easy removal and reattachment of the removable body part.

Regarding claim 8, the Oh discloses all of the claim limitations as set forth above.

While Oh does not explicitly disclose sealing means being provided between the body parts of the each separating device, the reference discloses the removable body part of the separating device (figure 2-3, refs. 30-31).

Reiling teaches a dust separating apparatus (figure 1, the first housing ref. 12 and the second housing ref. 20) for a suction cleaner (abstract). Additionally, Reiling teaches that sealing means is provided between each of the body parts (figure 2, ref. 12 and ref. 20) of the or each separating device, for preventing air leakage at the connection therebetween (e.g., column 3, lines 29-38, column 3, line 51-56, and figures

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2-3, ref. 82). Further, the reference teaches that the o-ring assists in securely locking both body parts together (column 3, lines 47-56).

Oh and Reiling are analogous because both references are directed to a dust separating apparatus for a suction cleaner.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Oh reference to include sealing means between the body parts of the or each separating device of Oh, as taught by Reiling, because the o-ring insures a proper air seal at the connections and to securely lock two housing together.

10. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over North (GB 2,367,510) as applied to claims 1-4 above, and further in view of Reiling (US 3,676,986).

Regarding claim 7, North discloses all of the claim limitations as set forth above.

While North does not explicitly disclose the removable body part of the separating device engages with the rest of the body thereof by a bayonet fitting, the reference discloses the removable body part of the separating device (figure 5, ref. 24).

Reiling teaches a dust separating apparatus (figure 1, the first housing ref. 12 and the second housing ref. 20) for a suction cleaner (abstract). Additionally, the reference discloses a movable part (figure 2, ref. 20) of the body of the dust separating apparatus is completely removable therefrom. Further, Reiling teaches that the removable body part (figure 2, ref. 20) of the separating device engages with the rest of

the body (figure 2, refs. 12) thereof by a bayonet fitting (e.g., column 3, lines 41-46, column 4, lines 37-50, figure 2, refs. 28-29 and 90-92).

North and Reiling are analogous because both references are directed to a dust separating apparatus for a suction cleaner.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a bayonet fitting to engage the removable body part with the rest of the body, in device of North, as taught by Reiling, because the bayonet fitting provides a sure and quick connect and disconnect of the body parts; therefore, facilitating quick and easy removal and reattachment of the removable body part.

Regarding claim 8, North discloses all of the claim limitations as set forth above.

While North does not explicitly disclose sealing means being provided between the body parts of the or each separating device, the reference discloses the removable body part of the separating device (figure 5, ref. 24).

Reiling teaches a dust separating apparatus (figure 1, the first housing ref. 12 and the second housing ref. 20) for a suction cleaner (abstract). Additionally, Reiling teaches that sealing means is provided between each of the body parts (figure 2, ref. 12 and ref. 20) of the or each separating device, for preventing air leakage at the connection therebetween (e.g., column 3, lines 29-38, column 3, line 51-56, and figures 2-3, ref. 82). Further, the reference teaches that the o-ring assists in securely locking both body parts together (column 3, lines 47-56).

North and Reiling are analogous because both references are directed to a dust separating apparatus for a suction cleaner.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Oh reference to include sealing means between the body parts of the or each separating device of North, as taught by Reiling, because the o-ring insures a proper air seal at the connections and to securely lock two housing together.

***Allowable Subject Matter***

11. Claims 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter:

The claim combination, wherein two dust separating devices lie within a casing of the cleaner spaced from one another with a receptacle for separated dust removably disposed with at least part thereof generally between them, the receptacle having respective inlets for dust communicating with the dust outlets of the two separating devices is allowable over the prior art said features are not disclosed by the reference. The addition of a receptacle for separating dust removably disposed with at least part thereof generally between them would not be obvious to one of ordinary skill in the art at the time of the invention, because it would prevent the apparatus from operating as designed. Additionally, while North teaches first and second cyclone separators, the receptacle lay between separating devices would destroy the function of two cyclonic separators in series.

***Conclusion***

13. Any inquiry concerning this communication should be directed to DUNG BUI at telephone number (571)270-7077. The examiner can normally be reached on Monday through Thursday from 7:30 am to 5 pm (EST), and every other Friday from 7:30 am to 4 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571)272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DB

/Basia Ridley/  
Supervisory Patent Examiner, Art Unit 4153